

REMARKS/ARGUMENTS

Claims 5 to 7 are added. The claims now in the application are 1 to 7.

A declaration under Rule 1.132 by the declarant Ken Kamachi is enclosed.

Claims 1 and 2 are amended to delete the first named fungicide.

Claims 1 and 2 are amended to insert identifying letters for the three fungicides recited.

Claims 1 and 2 are amended to correct the name of fungicide (C). No new matter is involved for the reasons explained below.

Claim 4 is amended to correct an obvious typographic error. This claim was intended to be drawn to the alternative reference claim recited in original Claim 3.

Claims 5 to 7 depend from Claim 2 but specify just one of the three fungicides there listed.

Concerning the correction to the name of the (C) fungicide, the following is observed.

The name as originally recited was clearly in error as specified since the recitation "α-cyano" requires, in view of the "α" identification, the existence of a side chain, not specified.

In the sentence bridging pages 4 and 5, it is stated that the compound (C), which is the same compound as the original (d), is disclosed in AG CHEM New Compound Review Vol. 9, 1999, page 53. A copy of that page accompanies this response. It will be observed that the compound has the generic name ethaboxam.

THE REJECTIONS

Reconsideration and withdrawal of the rejection of Claims 1-4 under 35 U.S.C. § 103(b) as being unpatentable over Komyoji et al., JP 0301103 and Nasu et al., 4995898 in view of Chazalet et al., WO 99/27788 and Masahiro, JP 04154704 are requested.

Komyoji et al. disclose that Applicants' compound of formula (I) is known as a pesticide. Applicants are aware of that fact as is evident from pages 1 and 2 of the subject application. However, Komyoji et al. do not disclose anything substantive concerning mixtures thereof with fungicides according to the cited Abstract.

Nasu et al. also do not disclose specific mixtures of Applicants' compound of formula (I) with a fungicide or identify a fungicide. Applicants' acknowledge that imidazole compounds have previously been combined with fungicides, the subject application, page 1, lines 11-15.

Chazalet et al., WO 99/27788 is referred to at page 1, lines 19-22 of the subject application. The Chazalet et al. document does not disclose a fungicide identical with one of the three fungicides disclosed and recited in the subject amended claims nor one similar to them.

Masahiro does disclose certain imidazoles in combination with certain thiazoles.

However, the broad class III of imidazoles disclosed by the Masahiro reference contains the group R^2 in the 5 position, which group is "alkyl or phenyl which may be replaced by halogen". The group in the corresponding position in the subject application is substituted phenyl, as specified by R, which is alkyl or lower alkoxy.

In addition, fungicide (C), which is a substituted thiazole, contains in the 2 position the grouping (ethylamino) which is obviously significantly different from and not suggested by the 2-methyl group in the thiazole (I) disclosed by Masahiro. Applicants' formulation is a mixture of two compounds neither of which is suggested by Masahiro.

Hence, one cannot say that Applicants' defined formulations are mere variants of the reference disclosures.

The enclosed Kamachi declaration reinforces Applicants' position.

It comprises formulations disclosed by Applicants, that is mixtures of Applicants' recited fungicide (C), the common name being ethaboxam, and a compound of the present application, identified as compound No. 1, which is an imidazole of formula (I), which are combined with mixtures of ethaboxam and compound IIb of Masahiro. Applicants' formulations exhibit superior unpredictable valuable synergistic effects.

Since the substitution of Applicants' imidazole for the imidazole of Masahiro leads to unpredictable useful superior properties when using ethaboxam, it is evident that no predictability as to particular superior results exists also when one additionally substitutes ethaboxam for the thiazole compound of Masahiro.

Chazalet et al. is not relevant to the here amended claims.

The rejection of Claims 1-4 under 35 U.S.C. § 102(a) as being anticipated by Chazalet et al. is moot as to the here amended claims.

The newly added Claims 5-7 are obviously similarly unobvious. In particular, Claims 5 and 6 recite formulations containing fungicides not asserted to be suggested by the prior art.

Favorable consideration of the claims now in the application is solicited.


Respectfully submitted,

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PCT

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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
MUNEKAZU OGAWA, ET AL. : EXAMINER: LEVY, N.
SERIAL NO: 10/030,685 :
FILED: FEBRUARY 20, 2003 : GROUP ART UNIT: 1616
FOR: PESTICIDAL COMPOSITION AND :
METHOD FOR CONTROLLING PESTS

DECLARATION UNDER 37 C.F.R. § 1.132

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Now comes Ken Kamachi who declares and states that:

1. That I am a graduate of Saga University, Faculty of Agriculture, from which I graduated in March, 1986
2. I entered Ishihara Sangyo Kaisha, Ltd., in April 1986.
3. I have been engaged in research and development of agrochemicals in the Central Research Institute of Ishihara Sangyo Kaisha, Ltd. since December 1996.
4. I have read and am familiar with the specification of the subject above-identified application and its claims.
5. I have read the Examiner's Official Action of January 22, 2004.
6. I have read and am familiar with the Masahiro JP A4-154704.
7. That in order to compare the pesticidal activity of formulations according to the subject application, with a formulation containing an imidazole compound according to Masahiro, the following test experiments were conducted by me or under my supervision.



7.1. Method of test and results of test

Tomato was cultivated in a pot having a diameter of 7.5 cm, and when the tomato reached a three or four leaf stage, the tomato was sprayed with a mixed drug solution having predetermined concentrations of N-(α -cyano-2-thenyl)-4-ethyl-2-(ethylamino)-5-thiazolecarboxamide (hereinafter referred to as Ethaboxam) and an imidazole compound, Compound No. 1 of present application or Compound IIb of Masahiro (JP-a-4-154704), in an amount of 800 liters/ha by a hand spray gun, followed by drying of the drug solution at room temperature. On the day of treatment with the drug solution and on the third day after treatment, the tomato was sprayed and inoculated with a zoosporangia suspension of fungi of tomato late blight. Then, it was kept in a moist chamber condition for 16 to 24 hours (20°C, in dark), and then left to stand in a room of 20°C. On the sixth day after treatment with the drug solution, the degree of disease outbreak of leaves was examined and described as follows: 0: no lesions were recognizable, 0.1:disease outbreak of less than 1%, 0.5:disease outbreak of less than 5%, 1:disease outbreak of less than 10%, 2:disease outbreak of less than 25%, 3:disease outbreak of less than 50%, 4:disease outbreak of less than 100%, 5:disease outbreak of 100%.

The incidence of disease outbreak was calculated according to the following formula; and the results are indicated in Table 1.

Incidence of disease outbreak = [(Total of degree of disease outbreak of respective leaves)/(5 x Number of leaves researched)] x 100

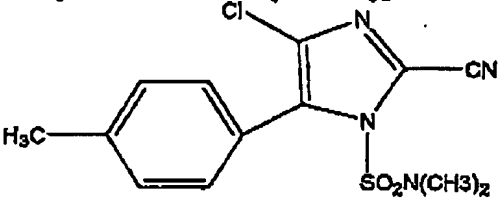
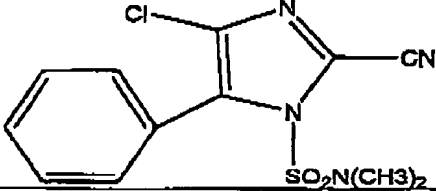
Further, a theoretical value calculated from the following Colby's formula applied to present compounds is also indicated in the parenthesis in Table 1.

Theoretical value = (X x Y)/100

X: Incidence (%) in the case of treatment with the compound Ethaboxam alone

Y: Incidence (%) in the case of treatment with the compound No. 1 of the present application or compound IIb of Masahiro.

Table 1

Imidazole compound	Ethaboxam	Incidence of tomato late blight (Theoretical value)		
		7.81 ppm	1.95 ppm	0.0 ppm
Compound No. 1 of the present application	3.13 ppm	0.0 (50.0)	0.0 (50.0)	50.0
	0.78 ppm	40.0 (86.7)	60.0 (86.7)	86.7
Compound IIb of Masahiro	3.13 ppm	0.0 (26.7)	3.3 (26.7)	26.7
	0.78 ppm	66.7 (100.0)	76.7 (100.0)	100.0
0.00 ppm		100.0	100.0	100.0

7.2. Calculation of Synergistic Effects

(1) The degree of synergistic effects of the Ethaboxam and imidazole compound was calculated by the following formula based on the results in Table 1. The results of calculation are indicated in Table 2.

$$\text{Degree of synergistic effects} = (\text{Theoretical value} - \text{Experimental value}) / \text{Theoretical value}$$

Table 2

Imidazole Compound	Ethaboxam	Degree of synergistic effects	
		7.81 ppm	1.95 ppm
Compound No. 1 of present application	3.13 ppm	1.00	1.00
	0.78 ppm	0.54	0.31
Compound IIb of Masahiro	3.13 ppm	1.00	0.88
	0.78 ppm	0.33	0.23-

From the results of Table 1, it is found that the combination of compounds within the claims of the present application (combination of Ethaboxam and the imidazole Compound No. 1 of present application) is superior to the combination of the imidazole "Compound IIb of Masahiro" and "Ethaboxam" in the degree of synergistic effects.

8. It is the opinion of the undersigned that the degree of synergistic effects revealed by the above experimental data is unpredictable and is a significant agricultural value.

9. The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing therefrom.

10. Further deponent saith not.

Ken Kamachi

Signature Ken Kamachi

May 12, 2004

Date

AG CHEM NEW COMPOUND REVIEW

**VOLUME 17
1999**

A review of the latest experimental chemical and biological compounds under development by the world's crop protection and industrial pest control industries. Additional chapters discuss the latest progress on genetically modified crops and R&D in the agrochemical industry.

Dr Rob Bryant & Dr MÆis Bite



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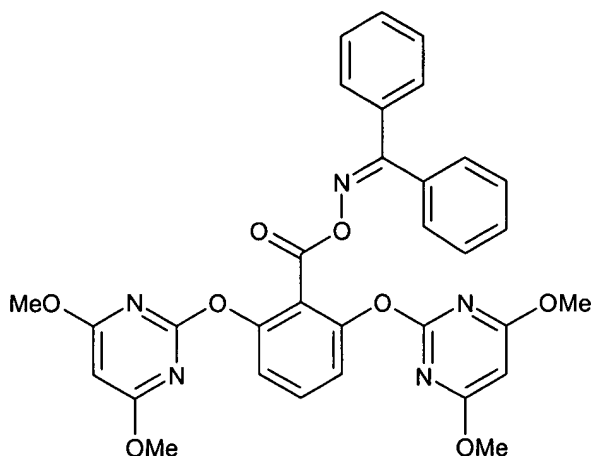
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LG Chemicals Ltd.

New Compounds in Development

Herbicides

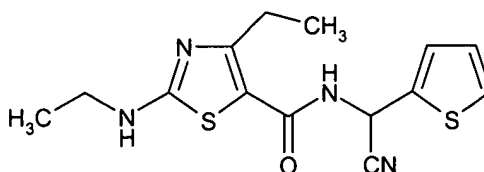
pyribenzoxim (p), PYANCHOR KILAJABI GOLD, LGC-40863



Chemical name: benzophenone O-[2,6-bis(4,6-dimethoxypyrimidin-2-yloxy)benzoyl]oxime
 CAS No: 168088-61-7
 Chemistry: A pyrimidyloxybenzoate compound
 Activity: A selective, broad spectrum post emergent herbicide for control of barnyard grass and broadleaf weeds active as an ALS inhibitor
 Market(s): Rice, cereals and turf
 Application rate: 30 - 50 gms/ha
 Entry year: 1994
 Patents: EP 658 549 (1993) (to Lucky Ltd.)
 Notes: On registration trials 1997. Asian introduction was expected during 1998.

LG Chemicals Ltd. - New Compounds Commercialised

*ethaboxam (p), GUARDIAN, LGC-30473



Chemical name: N-(2-cyano-2-phenyl)-4-ethyl-2-(ethylamino)-5-thiazolecarboxamide
 CAS No: 162650-77-3
 Chemistry: A thiazolecarboxamide compound
 Activity: A fungicide useful for control of Oomycete diseases, downy mildew and late blight
 Market(s): Vines, vegetables
 Application rate: 125 - 250 gms/ha
 Formulations: WP
 Entry year: 1999
 Patents: EP 94 112 652.6
 Notes: Commercialised in Korea in 1999. Used solo or in admixture with other fungicides.
 Commercialised: 1999